VERIFICATION OF AUTHORIZATION BASIS DOCUMENTATION

1.0 Objective

The objective of this surveillance is for the Facility Representative or Environmental, Safety, and Health Support Specialist to verify that the laboratory's configuration and operations remain consistent with the authorization basis. As defined in DOE 5480.21, the authorization basis consists of the laboratory design basis as reviewed and approved by DOE and operational requirements established by DOE to ensure that the laboratory is operated safely. Essentially, the authorization basis is the aggregate of all elements that DOE relies upon to ensure safety when the laboratory is authorized to begin operations.

The laboratory is required to establish controls that prevent changes in the laboratory or in operations that place the laboratory outside the authorization basis. In this surveillance, the Facility Representative or Environmental, Safety, and Health Support Specialist verifies the effectiveness of these controls for the selected items.

2.0 References

2.1 DOE 5480.21, *Unreviewed Safety Questions*

2.2 DOE 5480.22, *Technical Safety Requirements*

2.3 DOE 5480.23, *Safety Analysis Reports*

2.4 DOE-STD-1073-93, *Guide for Operational Configuration Management*

3.0 Surveillance Activities

The Facility Representative or Environmental, Safety, and Health Support Specialist initially selects two or more elements from the authorization basis for verification. The elements that are selected should be significant with respect to safety and should be verifiable. Table 1 provides a range of examples of items that may be selected for verification.

In verifying that the laboratory configuration or operations are consistent with the selected elements of the authorization basis, the Facility Representative or Environmental, Safety, and Health Support Specialist should follow a three-step process. First, the Facility Representative or Environmental, Safety, and Health Support Specialist should define the essential subelements for each element that has been chosen for verification. For example, suppose that a statement has been chosen from the authorization basis that a pressure in a specific tank cannot exceed a given value. Key subelements of this statement would include (1) Pressure in the tank is

routinely monitored during shift rounds or high pressure is alarmed in the control room so the operator can take action; (2) Instruments have been provided to measure pressure and are routinely calibrated; (3) Procedures provide guidance to the operator on actions to be taken if pressure in the tank approaches the safety limit; (4) If pressure is alarmed, the setpoint has been established with sufficient margin for the operator to take corrective actions.

Second, the Facility Representative or Environmental, Safety, and Health Support Specialist verifies that the selected element and its subelements are accurately reflected in plant documentation. For the example above, the Facility Representative or Environmental, Safety, and Health Support Specialist might verify (1) Instruments are shown on plant drawings; (2) Procedures have been prepared and issued; (3) Round sheets include checks on tank pressure; and (4) Setpoint calculations have been prepared, reviewed, and approved.

Finally, the Facility Representative or Environmental, Safety, and Health Support Specialist physically examines or walks down the appropriate subelements to verify their status. For the above example, this might include (1) Observing pressure instruments and checking calibration stickers; (2) Observing shift rounds; (3) Walking down the control area to examine the pressure alarms and verify availability of procedures; and (4) Verifying that the tank pressure is below the safety limit.

In this surveillance, Facility Representatives or Environmental, Safety, and Health Support Specialist should be particularly sensitive to the potential impact of discrepancies between the requirements in the authorization basis and actual facility configuration and operations. In particular, discrepancies may require reporting under the occurrence reporting program, prompt evaluations to determine if an unreviewed safety question exists, and immediate corrective actions to restore the laboratory to operations within the authorization basis.

Surveillance Guideline
VERIFICATION OF AUTHORIZATION BASIS DOCUMENTATION

Table 1 - Examples of Elements in the Authorization Basis to Select for Verification

Assumptions in accident analyses
Assumptions regarding quantities of radioactive or hazardous materials at risk
Performance of engineered safeguard feature systems
Limiting safety settings for instruments or controls
Design limits for process systems
Features to mitigate natural phenomena hazards
Performance of support systems required for operability of Engineered Safeguard Feature Systems
Operator actions to mitigate abnormal events and emergencies
Passive features that mitigate abnormal events and emergencies
Performance of systems to monitor releases of radiological or chemical effluents
Implementation of administrative programs or policies
Descriptions of safety-related processes

Surveillance Guideline
VERIFICATION OF AUTHORIZATION BASIS DOCUMENTATION

Surveillance No.: _____

Facility: _____

Date Completed: _____

1. Elements of Authorization Basis Evaluated. (Provide description of elements and references)

_____

_____

_____

_____

_____

2. Subelements evaluated for each element

_____

_____

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Surveillance Guideline
VERIFICATION OF AUTHORIZATION BASIS DOCUMENTATION

3. Facility documentation demonstrating conformance with subelements.

4. Surveillance activities to verify "hands-on" implementation of plant documentation.

Surveillance Guideline
VERIFICATION OF AUTHORIZATION BASIS DOCUMENTATION

NOTES/COMMENTS:

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_____

PERSONNEL CONTACTED: _____

_____

_____

_____

_____

Surveillance Guideline
VERIFICATION OF AUTHORIZATION BASIS DOCUMENTATION

IF MORE SPACE IS NEEDED FOR FINDINGS, OBSERVATIONS, AND FOLLOWUP ITEMS - USE ADDITIONAL SHEETS

FINDINGS:

Finding No.: _____

Description: _____

_____

_____

_____

Finding No.: _____

Description: _____

_____

_____

_____

_____

Finding No.: _____

Description: _____

_____

_____

_____

Surveillance Guideline
VERIFICATION OF AUTHORIZATION BASIS DOCUMENTATION

OBSERVATIONS:

Observation No.: _____

Description: _____

_____

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_____

Observation No.: _____

Description: _____

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_____

Observation No.: _____

Description: _____

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Surveillance Guideline
VERIFICATION OF AUTHORIZATION BASIS DOCUMENTATION

FOLLOWUP ITEMS:

Followup Item No.: _____

Description: _____

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_____

Followup Item No.: _____

Description: _____

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Followup Item No.: _____

Description: _____

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Surveillance Guideline
VERIFICATION OF AUTHORIZATION BASIS DOCUMENTATION

LABORATORY MANAGEMENT DEBRIEFED AND RESULTS: _____

_____

_____

_____

Signature:_____ Date: _____
Facility Representative or
Environmental, Safety, and Health Support Specialist